American Farmer,

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY

"O Fortunatos nimium sua si bona norint
"Agricolas." . . . . *Virg.*

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THE AMERICAN FARMER.

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Renovation of exhausted Soils—We invite particular attention to the essay upon this subject, which will be found in our columns to-day.

Roots—Sugar Beet, Mangel Wurzel, Carrots and Parsnip seed may still be sown with a certainty of yielding a good crop.

☞Experiments requested in Corn.

Impressed as we are with the belief, that the average yield of the corn crop is much less than it ought to be, and that by proper attention to manuring and culture, it may be increased a hundred per cent. we feel solicitous that some of our corn-planters should, during the *present season*, make the experiment which it is the purpose of this article to point out. It is contended by *Leibig* that the liquid and solid excrements of a man will, in one year, generate a sufficient quantity of nitrogen to raise more than an acre of wheat, rye or oats. If this be true, and we see no just reason to doubt it, every farmer and planter can very easily perceive, how much he loses by not economising this resource of his estate, which, under his present arrangements, is now permitted to go to waste, much to the impairment of his interest as well as to that of the public. The radical change, in the economy of a farm, which would be necessary to be made to effect the saving above indicated, we are aware must be the work of time; but though the entire saving cannot be effected at once, still that does not argue, that a beginning may not be made; and the ice once broken, it will be an easy matter to carry out the plan thereafter. With a view, therefore, of *commencing the work*, we respectfully propose, that the compost which we shall presently name, be made and applied as suggested; and in order that the experiment shall be fairly made, we would propose, that *several* enterprising corn growers make it, and report to our paper the success attending their respective experiments. If the results should correspond, why then there can be no question as to the utility, or inutility, of the compost we shall recommend.

We propose then, that each of those who may make the experiment, shall mark off, by measurement, an acre in their corn-field now planted, or to be planted, and that on this acre they put a pint of the compost to each hill, either at the first or second working of the corn; that they give to the whole field the same culture throughout the season, and that at the period of gathering their corn, they carefully measure the corn grown on the *composted acre*, as also that on any other acre in the field which they may select, and thus test the product of each. By this they will be able to ascertain with precision the importance and value of the compost, as well as to tell whether the increase in yield will justify the cost of extra labor and material incurred.

THE COMPOST.

Take in the proportion of 40 bushels of rich loam or rotten manure,
5 do ashes,
2 do lime,
1 do plaster,
20 gallons urine.

Mix the whole well together, thoroughly saturating the mass with the urine, making it into a pie so as to resist rain; after letting it remain two or three days, submit the pie to another mixing process, when it will be fit for use, and should be applied, by strewing a pint of it around the plants in each hill of corn.

The following table will show the quantity which will be required at the designated distances:

Distance of the Corn apart.	*No. of square feet in an acre.*	*No of hills in an acre.*	*No. of bushels of corn post required for 1 ac.*
4 ft. by 1 ft.	43,560	10,890	170 5-32
4 " 2	"	5,444	85 5-64
4 " 3	"	3,630	56 23-32
4 " 4	"	2,722	42 1-2
5 " 3	"	2,904	45 3-8
5 " 4	"	2,178	34 1-32

In making the compost, one-fourth the mould, or rotten manure, should be spread on the earth, covering such a space as will make a body about 6 inches deep, then add respectively a like *proportion* of each of the other ingredients, then add the mould, or earth, and so on, until the mass be completed; when the whole must be mixed as before directed and formed into a pie. We are confident that should this experiment be fairly carried out, that it will add at least one hundred per cent. to the product of the acre, over and above any other acre in the field not similarly treated, and as the expense and trouble attending it will be comparatively trifling, we shall anxiously await the issue.

Raising of Calves for Veal—There is perhaps no meat which comes to our markets in so indifferent a state as that of Veal. When proper care is taken with calves, there is no variety of flesh appropriated to the consumption of man, more palatable or gratifying to the human appetite, and yet notwithstanding this fact, from the indifference manifested by those who prepare them for the butcher, there is no meat, generally speaking, brought to the shambles so utterly destitute of all pretensions to fitness of condition. A calf, if properly fed, would command as veal, such price as would be ample remuneration for all trouble and expense for rearing and feeding; but as they are now brought to market, there is no part of the product of the farm which pays so indifferently well. And as there is a remedy at hand, this evil should be corrected.

With a view of contributing our mite towards the reform of this custom, of bringing *poor* calves to the slaughter, we will detail a method of making *fat* ones, which we have seen successfully pursued.

The calf when first calved should be taken from the mother and confined in a dry dark room, with plenty of bedding. The mother should be let to it to suckle it three times a day at regular hours, and the calf should receive *all* her milk.

When the calf is a week old, in addition to its mother's milk, it should be given between the morning and midday and evening times of suckling, force balls made of raw egg and half a pint of corn meal at each mess; the balls to be made of convenient size to be given the calf without difficulty. The manner of feeding which we have seen pursued is this—the calf's head is held up and backwards by the feeder with one hand, who opens the calf's mouth with the other, and thrusts the force ball down towards the root of the tongue, when, by closing and holding the mouth, the calf is compelled to swallow the ball. These two additional feeds will answer until the third week, when another egg and additional half pint of meal must be given, about an hour after the evening suckling. By feeding in this way, in four weeks the calf will be in good condition and ready for the butcher, and will command as much again as one which receives nothing but its mother's milk. These balls would be the better of being made up with milk which had been scalded.

Should this method of feeding *scour*, that may be very promptly corrected, by mixing with the balls a teaspoonful of powdered chalk, and one-fourth that quantity of powdered alum.

A calf which si large and strong, may be further improved by being fed with sweet skimmed milk. The calf may be taught to drink the milk by forcing its head down into the vessel containing it, and inserting the fore finger into its mouth for a day or two. And the color of the veal may be greatly improved by subjecting the calf to the operation of bleeding, twice during the fattening period, say at intervals of two weeks apart.

At all times the calf should have in a trough convenient to it, with two apartments, a small quantity of good hay, and grass of some kind, at either of which it may pick when it pleases.

Effect of Top-dressing and Draining.—Hayward, a very ingenious English author, in his work on the Science of Agriculture, gives the following very striking instance of the good effects of top-dressing and draining a field of grass-land:

"To show the beneficial effects of top-dressing, I shall state that I took possession of a field of pasture land of about twenty acres, a strong yellow or foxy clay; it lay on the side of a hill, and was *very wet* and poachy, particularly during winter; had been generally cut for hay, although it seldom produced more than three-fourths of a load per acre, and this not till the end of July. I *drained it* by cutting a ditch at the upper side, deep enough to get below the stratum of clay, which in some places was upwards of five feet, turning the water down the sides, and gave it a top-dressing of scavenger's manure, the cleaning of the town streets; and the year after, it produced me a load and a half per acre in the middle of June; and a second crop, of three-fourths of a load the beginning of September; and this it continued to do, varying a little more or less, according only as the seasons were wet or dry."

Mr. Hayward's *rationale* of his theory may be gathered from the subjoined remarks. He says:

"The difference in the effect of the method I recommend, of applying manure on the surface, and there to let it remain the longest period convenient; and that by Sir H. Davy, of burying it immediately, may be determin-

ed by the comparative formation and effect of the two gases, *carbonic acid*, and *carburetted hydrogen*. If the former be, as stated, a principal ingredient in the food of plants, and that by its specific gravity it will *penetrate* into the soil, no method more favorable for its generation and equal distribution can be devised, than by my mode of application; and if *carburetted hydrogen* be either an unwholesome food, or by its rapid escape, the occasion of a great waste of carbon; and nitrogen gas be poisonous, or noxious, when in contact with the food, no mode can be more favorable to, or productive of, both those effects, than burying the dung in an unfermented state."

It is not for us to decide between these two eminent agricultural writers; but it may not be inopportune to the occasion to observe, that, in our opinion, the beneficial effects produced by the treatment of Mr. Hayward, may be very fairly traced to two causes, the draining, as well as the top-dressing. By draining, the roots of the plants were relieved from a superabundant supply of water, and subjected to the action—wholesome and invigorating—of both sun and air, two things as essential to their growth as food itself—by this operation, they were prepared to appropriate to themselves the pabulum provided by the top-dressing, and hence the great increase in product, as well as earlier maturity of the grass.

COTTON—The following is a statement of the consumption of Cotton in the U. States, not including any manufactured west of Virginia or south of the Potomac, except in Pittsburg and Richmond. It is extracted from the U. S. Register:

Crop 1826-7,	103,483 ba's	Crop 1834-5,	216,888 ba's.
" 1827-8,	120,593 "	" 1835-6,	236,733 "
" 1828-9,	118,853 "	" 1836-7,	222,540 "
" 1829-30,	126,512 "	" 1837-8,	246,061 "
" 1830-1,	182,142 "	" 1838-9,	276,018 "
" 1831-2,	173,800 "	" 1839-40,	295,193 "
" 1832-3,	194,412 "	" 1840-1,	297,288 "
" 1833-4,	196,413 "		

Export of Cotton Manufactures of home manufacture, from the United States:

1835,	$2,858,000	1838,	$3,758,000
1836,	2,225,000	1839,	2,975,000
1837,	2,831,000	1840,	3,549,000

What a Country is ours!—The Massachusetts Ploughman of the 30th ultimo, says:

"Peach and Cherry trees are in blossom, and gardens in the vicinity (of Boston) have quite a fresh appearance. Strawberry beds attract much attention."

At the very moment that our Boston friend was rejoicing in the freshness of the appearance of the gardens in his vicinage, and pointing to the blossoms of the Peach and Cherry trees, as evidence of smiling vegetation, we and the good citizens of Baltimore were absolutely enjoying *ripe* cherries—while his strawberry beds were "attracting attention," our citizens were gratifying their appetites with messes of the delicious fruit of theirs; both cherries and strawberries, ripe, tempting, and luscious, having been in our market before the date of the Ploughman's article.

THE TOBACCO CROP—We regret to learn that the fly is making great ravages with the young tobacco plants in Prince George's and the neighboring counties. The Upper Marlborough Gazette says that the complaint is almost universal, and unless there is a change very soon for the better, it is certain that nothing like a full crop can be planted.

CORN OIL—It is stated in a western paper, that a number of barrels of Corn Oil have been sent on from Ohio to New York. It is said to be an excellent commodity—burning as brilliantly as the purest sperm without emitting any of the offensive odor of ordinary oil.

Green Peas—Our markets have been moderately supplied with green peas for about three weeks, and are now at such price as place them within the reach of nearly all.

NATIONAL AGRICULTURAL SOCIETY.

This society met at the Patent Office in Washington, D. C. on Wednesday last, when the Hon. Jas. M. Garnett was unanimously re-elected President, and Mr. J. F. Callan Secretary for the ensuing year.

A committee, consisting of Mr. Ellsworth, of Washington, Rev. J. O. Chouls of N. York, and Dr. Eli Ives of Conn. were appointed to consult and report on the expediency of publishing an agricultural periodical, who reported favorably thereon, which was agreed to.

Mr. Wakeman of N. York, from the committee appointed on the subject, reported in favor of appointing a committee of two from each state and territory, to meet in Philadelphia on Wednesday, the 6th of July next, to confer and determine on the expediency of holding an Agricultural and Mechanical Fair in the city of Washington in December next. A resolution on that subject was adopted, and a committee appointed accordingly.

Mr. Garnett upon taking the chair, delivered an able and interesting address, in which he took a somewhat rapid sketch of the proceedings of the society, and interspersed his remarks with some judicious reflections and advice. A vote of thanks was subsequently passed him, and a copy of his address requested for publication.

We make the above brief abstract from the proceedings published in the Intelligencer. A more full account, together with the list of Vice Presidents, &c. will no doubt be furnished for publication.

VEGETABLE SURGERY—In the Horticultural Magazine for April, the following instance of an ingenious method of restoring a girdled apple tree, is given from Mr. Colman's 4th report upon the agriculture of Massachusetts:

"Mr. Phinney saved some of his trees a few days since, by a process which is worthy of recording. They had been completely girdled near the ground in the winter by the mice, who had eaten the bark round to a width of two or three inches or more. By cutting scions in the spring, and inserting the ends of several of them round the tree, under the bark above and below the injury, so as to form a communication for the sap, the injured parts have begun to grow together, the whole wound may ultimately be covered, and the trees live and flourish. To most persons, after the injury their situation would have seemed desperate."

MANNER OF SOWING GRASS SEED IN ENGLAND—Grass seeds are universally sown by a drill which lays them with great regularity, and avoids all the inconvenience and unequal distribution occasioned by unfavorable winds in sowing by hand. It is drawn by one horse and attended by a man who drives with reins while he walks behind the machine, and sees that all is going right. The horse walks in the furrow between the ridges, which keeps him a straight course, and the machine sows to the middle of the ridges on each side, being constructed to sow 12 or 15 feet, as may be required, and to deliver various quantities of seed, according to the amount per acre wished to be sown. All descriptions of seed intended for sowing are mixed thoroughly together, by frequent turning on the granary floor before being carried to the field and put into the machine. A man and horse will easily sow 30 acres a day on ridges of 15 feet wide. Seeds sown upon wheat are commonly rolled and slightly harrowed—Those with barley are sown at the same time—that is, previous to the last turn of the harrow by which the seeds are covered, a roller following to leave a smooth surface. The seeds sown consist of a mixture of red and white clover, a little trefoil, perennial rye grass and occasionally timothy or Italian rye grass and cock-foot. In the portion intended for hay, a large quantity of red clover is introduced, and less of some of the others. Clover hay is thought to be improved for horse feed by the mixture of rye grass, and more easily made.

TOMATOES A CURE FOR SCOURS IN PIGS.—This plant, the tomato, is generally at first disliked by many,—but it nevertheless is much cultivated and admired. Last fall, we had a pig that was taken with the scours badly. We tried various remedies for it with but little effect. One day we threw over to it two or three tomatoes which it eat readily, and which we found gave it relief. By following this course a few days it was finally cured.—*Maine Farmer.*

THE WILEY PLOUGH.

To the Editor of the American Farmer:

Having had the perusal of several numbers of thy valuable paper, devoted to the different departments of agriculture, and observed the high recommendation of the patent plough (termed the double pointed Wiley Plough) for whom the Messrs. A. G. & N. U. Mott, of Baltimore, are the entire agents of the South—And having had some thirty years experience in the different kinds of ploughs that have been introduced into Chester county, I may inform that I obtained a plough from B. H. Wiley, the patentee, more than twelve years ago, and after using it am convinced of the superiority over all the ploughs which have been introduced, including the Prouty, Beech and Davis Ploughs, and several others. I can recommend the Wiley plough for lightness of draught—I can run of these ploughs in a sod with the same force of team that it requires for one of the old fashioned kind, and it does not require more than one-tenth to keep them in repair, as it does the common bar-share plough, for with this plough every farmer can be his own blacksmith—One share will plough 20 acres of ordinary land, and to renew it the cost is trifling—It also performs its work to entire satisfaction, leaving the ground in a fine state for sowing grain, therefore obviates the necessity of harrowing the ground before sowing.

There are five of these ploughs used to one of any other sort, in this county, and as the season for the use of this implement has commenced, if these broken hints will induce some of my agricultural friends to make a trial of this plough, they will not say I have over-rated it.

A Chester County Farmer.

The above communication is from an old and experienced and most respectable farmer of that highly improved section of Pennsylvania from which he hails, and is in consonance with the opinions expressed of the plough of which he speaks, by many of the best farmers in our own county and state. We have used one of the smaller kinds, obtained from Messrs. Mott, and find it to work admirably—and the gentleman having the immediate charge of our place, a practical man, and an experienced farmer, surpassed by few in this state, gives it his most decided approval.

A full opportunity for a fair trial of the relative merits of this and various other ploughs will take place at our Fall Agricultural Fair, manufacturers of the implement from a distance having intimated their intention of being present, to test with the dynometer, the draught of the ploughs which may be entered for the prize to be awarded by our County Society.

USE OF PLASTER—In the Farmer's Gazette, C. Robinson of N. Haven, shows by various experiments the great utility of plaster, and that many are deceived as to its effects and quality. He recommends sowing it on pasture lands early in the spring; soaking seed corn in a solution of saltpetre and rolling it in plaster, and applying it to potatoes by putting a small quantity in the hill on the seed. Mr. Robinson thinks that the opinion that plaster is not beneficial near the sea is unfounded, and has arisen from the use of plaster ground coarsely and of but little value, as is generally the case with that brought in casks from Maine. It should be ground perfectly fine like flour, it will then have a rich oily feeling and no grit can be perceived between the fingers.

When plaster is sowed on part of a pasture, that part will produce sweeter feed, if the quantity be increased, as the growth will be more rapid and luxuriant. The excellence of the feed on the improved part induces animals to visit it often and feed it close to the ground; from the short herbage, and apparently small crop, some persons who are not close observers, suppose that plaster is not beneficial. Mr. R. remarks as follows:

"From a series of experiments in my garden last season with plaster saturated with urine, I am satisfied that a great accession of the most powerful manure may be made to the farmer's stock, by strewing plaster in stables and elsewhere, so as to absorb all the urine. In this way, if his manure when thrown from the stable is protected from the rain, even by a shed only, he may obtain a great amount, little if any inferior to the boasted poudrette that sells at two dollars the barrel.

"I wish it to be distinctly understood, that when I re-

commend plaster of paris, and speak of its effects, I refer only to that which is ground as fine as the finest flour—No other, as I view it, is worth the trouble of putting on to the land."

THE STEAM PLOUGH.—Last week, we received the following letter from Mr. Larkin, of Pittsburg, in relation to the steam plough which, as we informed our readers, a short thime since, he constructed expressly for our Attakapas Prairie land. We hope some arrangement will be entered into, immediately, with Mr. Larkin. All we want is the union of a few of our wealthy planters to effect the object. The importance of machinery for shortening manual labor, is apparent. No limits can be assigned to the power of steam, and the importance of its substitution for horse power in ploughing, cannot be justly appreciated.—We confidently believe that with a properly constructed steam plough, the work of thirty-two horses in a week, may be performed in one day! The owners, after ploughing their own land, may reap a handsome profit, by hiring it to others.* We hope Mr. Larkin will be rewarded for his ingenuity as he deserves, and we trust that to the enterprise of our Attakapas planters will belong the honor of *first* using a steam plough. We will be most happy to publish communications from Mr. Wilkins, or any other planter on the subject.

*It will be found useful for hauling wood, &c.

To the Editor of the Planters' Banner.

Pittsburgh, Pa., Jan. 28, 1842.

Dear Sir:—I tender you my sincere thanks for the favor which you have conferred on me, by publishing my letter in your paper, as well as for the information you gave me in your letter, and the further intelligence I received from the copy of the *Banner* which you sent me. I received your letter on the 8th, but did not receive the paper until the 17th, and being severely indisposed, these reasons prevented me from writing until now. You request me to give you some particulars relative to my Steam Plough for publication: I can give you only a brief description of it, at present. It is constructed on the principle of a car or carriage. Two engines are attached to a square frame, with a boiler of suitable size between them, which supplies both with steam. Each engine is attached to the draining wheels by purchase power capable of moving any weight. There are two guiding wheels in front, which are guided in an easy manner by means of a drum wheel. The ploughing machinery is attached to the rear of this carriage. From one to eight ploughs can be worked at a time, with convenience, and a harrow can be attached to work without difficulty. It may be used to transport burthens on a good level road.

This sketch although very indefinite, will give you an idea of what it is like, but you will probably have received the information before this reaches you, as I have written to John D. Williams concerning the same. A machine of a proper size, with all things appertaining thereto, manufactured in Pittsburg, would cost between three and four thousand dollars. But I cannot as yet, form an exact estimate, as this is entirely a new piece of machinery.

Very Respectfully, JOHN LARKIN.

EXTRAORDINARY DISCOVERY.—We copy *verbatim* the following notice of a late French discovery, from an English paper. Whether it is of any importance, or whether it is any discovery at all, we are entirely ignorant, but we hope that some of our inquisitive readers will test it:—

"The injunction of a solution of chlorine of aluminum into the aorata or main arterial trunk of the animal will preserve it fresh for an indefinite period, without imparting to it the slightest taste. The chloric acid of the salt renders the gelatine or decomposition, perhaps by destroying some alkali, for which the acid has a greater affinity than for aluminum. The latter substance thus deprived of its acid becomes an insipid powder. The particulars of this discovery, by M. Gannal, will be found in the bulletin of the French academy of sciences for the sitting of March 22, and in the Literary Gazette of that meeting. From three to five pounds of salt, dissolved in twice or three times its weight of water, is sufficient for an ox. Persons disposed to make experiments on the subject need scarcely be reminded that the smaller animals such as rabbits or cats, should be employed. Subjects for anatomical dissection should also be prepared in this manner. Here is a new field opened for commerce of a most important description.

"Thousands of oxen on the coast of Spanish America are slain for their skin only; the flesh being cast upon the dunghill. It may now be preserved and shipped for the West India market as fresh meat. The health of seamen on long voyages will be preserved, and the comfort of passengers in emigrant ships to Sydney will be materially improved by the application of this important discovery.—The table of the Academie des Sciences, on the reading of M. Gallah's memoir, was covered with legs of mutton, fowls, *et id genus omne*, which had been preserved for many months by the new process. The chlorure of aluminum would be very cheap, when made on a large scale for commercial purposes."

RESULTS OF TOP DRESSING ON CLOVER.—On walking over a clover field which had then been mown the second time for seed, and the crop raked into wind-rows, I observed that a square space, about an acre, was much more thickly set, and the leaves of a more vigorous appearance, than any other portion of the field, and seeing that the great thickness of the crop was marked with the exactitude of a line, I pointed it out to my friend from a distance as the work of a bad mower, who had left part of the crop on the land, not having cut "the bottom half-inch," but on a closer inspection I could perceive that the line ran *across* the swathes, and not *with* them; so that this could not be the cause of the very great difference in the appearance of the crop which was found to proceed altogether from a closer plant of much more vigorous growth; on which my friend remarked, "The clover seed with which this field was sown was saved by myself, was carefully cleaned in the barn, and taken immediately from thence and sown in the field; but my seedsman scattered it too plentifully at first, and the consequence was, the clean seed was all exhausted, and the square which you see was left unsown, but not being willing to leave this portion of the field without a crop, and having no seed at hand, I took the clover chaff from the barn, and scattered it very thickly over the unsown portion of the land, thinking there might be a few seeds contained amongst it; and you now see the result, after two crops of far heavier bulk have been removed from the spot before us."—*Farmer's Cabinet.*

SOAKING BEET AND OTHER SEEDS.—The custom of soaking seeds previous to sowing is very common, and there is no doubt that it hastens the process of germination; or rather, that germination takes place in a less time after being committed to the earth than if they were put in dry, because a part of the process, namely, that of imbibing moisture sufficient to begin the action of germination has already been done.

Some seeds, like those of beets, which are covered by a thick spongy envelope, are particularly benefitted by being soaked before planting.

Last season we put some seeds of the sugar beet in water to soak, expecting to plant them next day. It was found best however to devote the ground, on which they were to be planted, to something else, and the seeds were suffered to remain. They lay in soak *three weeks*, a large portion of them had sprouted, the hull fermented, and flies had laid, and the eggs hatched maggots among them. Supposing that they were spoiled, we took them and threw them by handsful into some drills where turnips were sown, thinking they might act as manure. To our surprise, almost every seed came up in a day or two, and although it was on the 7th of July that they were planted, yet they grew sufficiently large for the table, and afforded a good crop for that purpose.—*Maine Far.*

NEW METHOD OF MANUFACTURING MANURE.

We have before us the prospectus of Mr. G. Bommer, of a new method of making vegetable manure by fermentation, which he has lately discovered, and which promises to be of great importance to the farming interest—provided it answers the expectations authorized by the advertisement of the inventor and certificates of several persons, (farmers and others) who have witnessed the process, and examined the article produced.

The transformation of vegetable substances into rich fertilizing manures by fermentation, is indeed no new thing; the principle is as old as the science of agriculture. But the method by which Mr. Bommer accomplishes this work is claimed as new. The value of the discovery, so far as we can understand it, consists in the facility with which vegetable substances of any and all kinds are transformed into the best of manure and the exceedingly short time required for the operation. It is said that Sedge, Seaweed, potato vines, straw, coarse grass, bogs, leaves, earth, and in short any other vegetable substance, is by this method throughly decomposed and turned into a rich and unctuous manure in the short space of *fifteen days*. If this is so, no farmer need complain of the want of a sufficient quantity of manure for his land; and to show that confidence is entertained in the utility of the discovery by those who have examined the subject, we have selected the following testimonial from the prospectus before us.

"I, the undersigned, Pierre Gray, farmer, residing at Madison, Morris county, N. J., certify, that Mr. Bommer has publicly made upon my premises his vegetable manure. The result of his process has been entirely satisfactory to me and those of my neighbours who have witnessed the operation and examined the product.

"The materials made use of in that experiment were straw from my barn, made into a heap, on the 5th of May last, and opened a fortnight afterwards. At that time the straw was found altogether decomposed and changed into a dark manure, very unctuous and rich, having a strong smell of ammonia and of good litter.

"And I hereby further certify, that this manure has been used on a field of turnips, in which it had an excellent effect, and also in my garden, where I obtained superior vegetables, among others some pumpkins of an extraordinary size for the kind, as may be seen at my house.

Madison Oct. 15, 1841. PIERRE GREY."

The Norwalk Gazette of Jan. 12 has an editorial notice of this method from which we extract the following paragraph:

"We witnessed the experiment now making on the premises of Mr. Day, at the Old Well, on Saturday last, in company with a gentleman of some experience. The material used in this experiment is *Sedge*—the coarse grass which grows about the flats of our harbor, mixed with seaweed. Several loads of this substance have been thrown into a heap (on the 8th ult.) and the substances applied to produce fermentation. The work of fermeniation was still going on when we were present, but the internal portion of the mass had become very much decomposed This exhibition, though given under somewhat unfavorable circumstances, fully satisfied us that the *principle* of the invention, viz. the ready decomposition of vegetable matter, is a good one, and one which the agriculturist may turn greatly to his advantage.

"Mr. Bommer has secured to himself the benefits of this discovery by Letters Patent under the seal of the United States. He has printed the details of the process in a pamphlet, which he offers to individual farmers, together with the right of using the method, for a small compensation. Rev. Eli Barnett is agent for the patentee for the State of Connecticut. That the farmers of our State may know whether this discovery is entitled to their confidence, Mr. Barnett submitted the pamphlet to the examination of Prof. Eli Ives of this city, who has furnished the following certificate for publication."

"REV. E. BARNETT: SIR—I have examined the pamphlet of Mr. Bommer on the subject of manufacturing manure. His method is founded on correct philosophical principles, agreeable to those recently advanced by Leibig. If the farmers can be induced to purchase the right and thoroughly execute his plan of making manure, in my opinion it will very much increase the value of the farms in the State of Connecticut. E. IVES."

"*New Haven, Feb.* 11, 1842."

Doct. Ives is known to most of our readers, as a gentleman of profound scientific attainments, ardently devoted to the cause of agricultural improvement, and one of the Vice Presidents of the U. States Agricultural Society. His recommendation will therefore be received with implicit confidence wherever his name is known.—*Farmer's (Con.) Gaz.*

FOREIGN NEWS—The steamer Caledonia arrived at Boston on Thursday, bringing Liverpool papers to the 19th ult. from which we are glad to learn that appearances were decidedly favorable for an improvement in the manufacturing districts, and a consequent improvement had taken place of 1-8 to 1-4d per lb. in Cotton, and it was confidently believed, that the price of this raw material has seen its lowest point. The week previous to the sailing of the Caledonia, 39,030 bales were sold, a considerable portion of it to speculators, and although prices had not materially improved, yet additional tightness was evinced on the part of holders.

From the N. E. Farmer.

We devote a large portion of our paper this week, to the following valuable article from the Hon. William Clark, Jr., of Northampton. Mr. Clark's experience as an agriculturist, and his success in the department of agriculture upon which he treats, entitle his essay to a careful perusal.—We should be happy to receive an account of the experiments alluded to in the closing paragraph.

RENOVATION OF EXHAUSTED SOILS.

MR. PUTNAM—The importance of some efficient and more economical method of renovating exhausted lands, than any now commonly pursued, is more deeply felt as the need of a more successful and productive agriculture is better appreciated.

It is true much has been done by means of "improved husbandry," to arrest the desolating march of the scourging system of former days which at one time bid fair eventually to depopulate the older settled parts of our country. Yet, judging from the past, it is also true that there are now more fields to be won to former fertility, than ordinary methods of fertilizing will accomplish in perhaps a century to come. Tracts of exhausted or worn out land are found in almost every section where "pine plains" or sandy lands exist. Many fields of this have been thrown out of cultivation, and are considered nearly worthless. Others, by scanty crops, now impoverish those who work them, or return a bare compensation for the labor applied; while some, from peculiar location, or other circumstances favorable to their improvement, have become productive and valuable. Cases enough of the latter class exist to show beyond a doubt that these lands are capable of being made highly productive; and after being put in good condition, it is thought by some that if well managed, few other lands will give a better return for the labor and expense bestowed in their cultivation.

As a general remark, it may be said of these exhausted lands that they are light, dry, and easy of cultivation, and possess all the constituents of a good soil, *except food for plants.* This exception is a most important one; but of this the land has been in a great measure deprived by severe cropping or cultivation, invited to excess by the easy and generous nature of the soil; and the question ever presented to the owner, or the passer by even, is, *How can this most essential element of fertility* (food for plants) *be profitably and economically restored to this wasted soil?*

A moment's reflection would seem enough to show that ordinary means fall far short of meeting the whole case. The extent of these lands—their location, often distant from the dwellings of owners—and the expense of labor and material, if manure is to be hauled, have a bearing, as regards both practicability and economy. And farm-yard manure, which affords the principal, of means generally employed to fertilize, is very limited in quantity, and together with the various animal substances used for the same purpose, affords less than is desirable for those lands which are now in a state of improvement, necessarily leaving exhausted fields to remain exhausted, unless successful resort is had to some other equal or superior method of fertilizing, as a substitute.

In looking for this substitute, various inquiries present themselves, naturally leading to the investigation of first principles, to seek out the cause of fertility and its sources, or to learn what is food for plants, what its nature or qualities, and where and how it can be obtained.

To assist in this investigation, Geology and Chemistry have disclosed facts no less valuable than those obtained by farmers from experience and observation. Geology teaches that there was a period in the history of our earth, when vegetation or vegetable matter was unknown; and we therefore infer that the plants or vegetables first brought into existence, must of necessity have subsisted solely upon elements found in water, atmospheric air, and the rock formations of the earth. In support of this inference, chemistry tells us that upon analysis, *all* the elements of vegetable matter are found to exist in water, air, and the rock formations. This is perhaps sufficient evidence as to what are the original sources of fertility or food for plants.

Geology shows further, as the earliest coal formations clearly indicate, that the first vegetable products of the earth were lichens, mosses, and other inferior plants, none of them capable of producing seeds or fruits suitable for the sustenance of men or animals. And no traces of the more valuable plants are found, except where preceding generations of the inferior orders had crumbled to decay and their remains mingled with the primitive earths or decomposed rocks, had formed what is commonly termed a productive soil.

From this we might infer that *the elements of fertility existing in a primitive state*, were competent to the growth and perfection of inferior plants, but were so diluted or attenuated, as to be incompetent to the perfection of the more valuable plants; and further, that the inferior plants when gathering nourishment from its primitive sources for their own subsistence, were in fact concentrating and condensing food for the benefit of their successors; and when decomposed, went to the formation of a soil, and themselves became food for succeeding plants; and by presenting food in a more condensed form than in its primitive state, gave sufficient nourishment for the perfection of plants of a higher order—the latter of course exhausting the soil of nutrition precisely in proportion to the amount which they drew of the remains of the former from the soil.

In support of these inferences, it is a well known fact that mosses and some other plants of equal merit, do flourish in situations where their organs can have access apparently to little or nothing but the primitive elements. And modern experiments have repeatedly shown that seeds of grain planted in pure sand or pounded glass, and supplied only with air and light, and distilled or pure water of suitable temperature, will grow up to the time of flowering; but after that period, literally die of starvation, and do not perfect their seeds, evidently for the want of more substantial and abundant sustenance than is requisite in the first stages of growth, or than the organs of the plants can gather from a state of primitive diffusion for the last stages of growth or perfection of the plants. Here is evidence that the primitive elements now possess what we have supposed to be their primitive powers, and evidence also that all plants draw a portion at least of their early nourishment from its primitive sources. The fact that plants require more food, and make heavier drafts upon the soil when ripening their seeds—and of course exhaust the soil more—than during previous growth, is well illustrated by the broom corn plant. This plant gives the most luxuriant farm crop grown in New England. Its weight of stem and foliage is perhaps double the weight of stem and foliage of Indian corn on land of same extent and quality, and from its ponderous growth might be expected to exhaust the soil more than any other crop; and yet it is said by many of long experience with it, to exhaust less than almost any other. The obvious reason for this result is, that from the effect of early frosts, a *full* crop of seed is not obtained oftener than an average of perhaps once in four or six years—the principal object of the grower being the "brush" and not the seed of the plant. But where a full crop of seed is obtained, the exhaustion—making due allowance for the large return to the soil of stocks and leaves of the plant left at harvest, is thought equal to that of other crops.

Experience has further shown that where the chemist can find no vegetable matter in the composition of a soil, the farmer can obtain no valuable product. And every farmer who cultivates in corn an acre of sward land of light quality, and observes the difference in crop between where a good sward was well plowed under, and where there was little or no sward when plowed, sees full evidence that decomposed vegetable matter is food for plants.

The universal practice among good farmers, on lands long cultivated, of saving weeds, brakes, refuse hay or straw and like substances, to go through the cattle yard or compost heap to the plow-field, which observation and experience has always approved, is evidence to the same point, as is also *universal experience* where new lands with ages of accumulated vegetable matter, are brought under cultivation, and can hardly leave a doubt in any mind that decomposing vegetable matter affords the *essential food* that in any soil is necessary to the *perfect* development of grain-producing and fruit-bearing plants, or plants of the highest order in the scale of vegetable excellence.

This essential food for plants has been called *geine.* This term is not very familiar to farmers, but is nevertheless useful as a definite name for the solid aliment of plants existing in the soil or at the earth's surface, distinct from the gaseous aliment which the atmosphere affords to plants in all places, and also distinct from the primitive earths or salts which enter into the frame-work of plants for their mechanical support, or which seasons their food or incites their organs to greater activity in appropriating nutrition. Some difference of opinion seems to exist among chemists in relation to geine. One has denied its existence further than its being a development of carbon; and another has discovered that it is compounded of at least ten different substances, some of which are compounds, and prefers to use the names of its constituents as far as they are known—crenic and apocrenic acid, &c.—leaving the remainder in "an unknown" and undenominated state. This may be all well for mere theorists; but as it proposes no change of measures to the practical man, in regard to the use, or affecting the value of the substance itself, it offers no inducement as an equivalent for rendering the subject more complex and obscure, by a formidable array of technical terms, of which time alone it seems will develop the full number.

It is highly desirable that this matter should be divested of all unnecessary drapery, and left as simple and plain as may be, to insure clear views and correct practice; for the practical farmer has but little interest in the support of mere theory, and is likely to be more bewildered than benefitted by "wondrous technicalities," and however proper it may be to "call things by their right names," he will doubtless prefer to use the simple term *geine*, until it is shown to lead to error in practice, or some practical benefit is promised by the change; for the same reason that he will prefer to call a certain kind of grain, *wheat*, rather than attempt to designate it by naming its components—starch, gluten, &c.—merely because these substances happen to exist in the different varieties in ever varying proportions.

Dr. S. L. Dana, of Lowell, whose incidental researches in agricultural chemistry are resulting in the highest benefit to the State, by advancing the science of agriculture, has rendered invaluable service by his discoveries relative to the nature and qualities of geine. His definition of it includes all decomposed organic matter, or all decomposed substances that have once possessed either vegetable or animal life.

In speaking of geine in connection with the earthy constituents and soluble salts of soils, he says: "the earths are the plates, the salts the seasoning, the geine the food of plants;" and describes geine as being a brownish black powdery mass, the result or product of the putrefaction or decomposition of organic substances, "existing in two states, soluble and insoluble; soluble geine is the food of plants; insoluble geine becomes food by air and moisture." "Geine forms the basis of all the nourishing part of all vegetable manures." "It is the principle which gives fertility to soils:" "it absorbs and retains nearly its own weight of water without seeming moist;" and "continually subjected to air and moisture, it is finally wholly dissipated in air, leaving only the inorganic bases of the plant with which it was once combined."

It has long been a conceded point, that the production of a plant is not a new creation, but merely a new arrangement or new combination of pre-existing particles of matter. But the changes which this matter undergoes previous to these new combinations, and after they are broken up, have been mostly unknown until the discoveries of Dr. Dana have supplied those links in the chain of evidence which were necessary to trace in connexion its circling history, through its ceaseless round of ceaseless changes.

These discoveries, with the other facts adduced, give evidence that geine comprises all the nutritive food which plants draw from the earth, and is furnished by the decomposition at the earth's surface, of vegetable or animal substances, the elements of which all originated from the primitive sources of fertility existing in air, water, and the rock formations.

Evidence is given also that plants draw a portion of their subsistence from the primitive sources of fertility, and to the extent that they do this, they are capable of augmenting the quantity of geine in any soil, on which they grow, by being covered in the soil, the reservoir which nature has provided to protect from dissipating atmospheric influence, and yield as they demand it, this concentrated or condensed nutrition which is necessary for the perfection of grain-growing and fruit-bearing plants.

Important evidence is given also in regard to the nature of geine, which shows that precisely at the period when it is reduced to a soluble state and prepared to be taken up by the roots of plants, *if exposed to the atmosphere*, it assumes a gaseous form and escapes. That which was of ærial origin—leaving the earthy parts or elaborated salts to mix with and measurably fertilize the earth—returns to the atmosphere and mingles with kindred atoms, to range the ethereal expanse with pristine freedom, or fertilize other fields, if perchance it comes within range of the appropriating powers of their growing plants.

If these evidences are correct, it follows that all substances, are valuable as food for plants, in proportion to the

amount of geine which they will yield, making due allowance for expense of bringing it to a soluble state; and plants, to be grown as fertilizers, are valuable in proportion to the amount of the elements of geine they gather from the atmosphere during growth, and the exposure of soil, containing soluble geine, to the active influence of midsummer atmosphere (as in the case of deep cultivation among growing crops, or of naked summer fallows,) however necessary it may be for the destruction of weeds or grass, inevitably results in the loss of fertilizing properties.

These facts, duly considered, appear sufficient to direct in the choice of the most economical measures to restore fertility, and the most efficient measures to preserve it.

Having ascertained that geine is the substance requisite to restore fertility to exhausted land, the next point for consideration is to find the most economical method of obtaining it; and this leads to an estimate, as far as may be, of the comparative value and expense of materials producing geine. These are various, including all vegetable and animal substances. Substances purely animal, although possessing intrinsic value, perhaps the highest in the scale, and worthy of great consideration where acres or half acres only are concerned, are too limited in quantity to affect materially the whole subject of exhausted lands, and therefore their consideration, as well as that of some other enriching substances, may, in this view of the subject, be omitted.

Farm-yard manure, peat or swamp muck, and the elements of geine, obtained from the atmosphere by the agency of grasses or other plants, to plow under, are generally all within the reach of every owner, and taken together doubtless afford ample means to sustain the fertility of the fertile, and enrich every acre of exhausted land. The first is limited in quantity to the amount of farm stock kept; the second is generally abundant, and in many places exhaustless; and the principles of the third are coextensive with the atmosphere itself, and for aught that appears, have energy now unimpaired as when, in the beams of the first morning, they were appointed the basis of all future vegetable and animal growth.

It will readily be seen that it is difficult to find the exact relative value of these substances, or the exact expense of obtaining them, as more or less of variation in different cases, may always be found, in both these particulars. An approximation to the truth in the case, as to a general proposition, is therefore all that can be expected, and may be all that correct practice will require; and for this purpose there are facts and data that may perhaps be deemed sufficient.

There is doubtless more generally a fixed or definite idea of the value of farm-yard manure, as a fertilizer, than of any other enriching substance; it may therefore be considered a better type of manures, or standard for comparison, than any other.

Dr. Dana, taking his own analysis in connection with that of other places, estimates a ton of green cow-dung to yield three hundred and five pounds of dry solid geine, calling all its hay *insoluble* geine. He says "it rapidly changes to that state: its passage through the animal, like *boiling*, has put it in a state to become geine much sooner than hay would change, if buried in the soil."

Estimating the value of common farm-yard manure at one dollar per ton, and allowing a ton of it to give the same quantity of geine that is given by a ton of solid green cow dung, (few would place it so high,) and geine from this source can be obtained at a fraction less than 33 cts. for 100 lbs.

To ascertain the value of swamp muck, three samples from a small swamp in Northampton, were forwarded to Dr. Dana for analysis. These samples were taken from depths, to give as near as could be, an average quality of the whole deposite. Samples from other swamps situated from thirty rods to three miles distant from this, were also forwarded, which proved more or less rich in geine, and gave an average quality nearly equal in value to the three samples first mentioned. The average of the three samples, after being drained of water equal to one third of the weight of the muck when first dug, which it will readily do, if piled up a few weeks, gave at the rate of four hundred and thirty-four pounds of geine to the ton. The cost of digging and piling muck, where it can be thrown up with a shovel or handily run out with a barrow, will not commonly exceed 25 cents per ton, in its half dry state; and allowing the ton to give 434 lbs., will furnish geine in an acid state, or mingled with acids, for something less than 6 cents for 100 lbs.

Muck or peat when first dug, is, from its sourness, so unfriendly to vegetation, that it cannot be employed with advantage in any case, except perhaps in small quantities and on a dry soil, unless it be subjected to some process for neutralizing its acidity. To effect this object, various processes have been proposed; all of them however seemingly too expensive; and for a cheap process, which is doubtless attainable, the farmer must yet look to the practical chemist.

In the absence of a better method, take that pursued by Mr. Phinney, of Lexington, who, after repeated experiments with compost made of two parts peat mud to one of green stable manure, all well mixed and fermented, says: "A load of this compost will give as great a produce and a more permanent improvement to the soil, than the same quantity of stable manure. In this opinion I am not alone. Other accurate and intelligent cultivators have made similar experiments with similar results." Additional testimony, to sustain Mr. Phinney's opinion as to these results, might be given, were it necessary; but these results can be true only on the supposition that peat contains as much geine or food for plants as the same quantity of stable manure, as is shown by analysis it does contain.

The peat from Mr. Phinney's farm appears not to differ essentially from best samples of swamp muck; and was found on analysis by Dr. C. T. Jackson, of Boston, to contain less silica and more salts and vegetable matter or geine, than the same weight of dried horse dung. Other samples of peat were found by Dr. Jackson to give from one or two to six per cent. less vegetable matter than that from Mr. Phinney.

A compost of farm-yard manure and muck, in the same proportions that Mr. Phinney employed similar materials, including the labor of compounding, hauling, &c., will afford geine fit for immediate use, at about two thirds the cost of that from the farm yard alone. And further, the quantity and value of fertilizing matter, on many farms, may thus be trebled, without further increase of live stock or cost of material from abroad. This leaves no doubt as to the expediency and economy of calling in the aid of peat and swamp muck to fertilize, rather than to depend exclusively upon the very limited product of the farm yard for that purpose, and is perhaps sufficient evidence as to the intrinsic value of peat and swamp muck, compared with farm yard manure.

A comparison of the expense of obtaining geine from its original sources, by the aid of growing plants, with that of obtaining it from the farm yard, is, in the absence of facts which the practical chemist alone can furnish, more difficult, and should be taken with a liberal allowance.

Mr. Phinney says he "ascertained by an accurate experiment, that on the first of May, a single foot of sward land, taken from a field that had been mown for a number of years, and thinly set with redtop and herdsgrass, contained nine ounces of vegetable matter, consisting of the roots and tops of the grasses; giving at this rate over twelve and a quarter tons to the acre."

How much geine a ton of this vegetable matter will yield, is, in the absence of a chemical test, a matter of conjecture. In view, however, of the pains-taking care of good farmers, to collect and save, ounces even, of similar substances to enlarge the manure heap, it seems but reasonable to suppose that it is at least half as valuable as the partly dry swamp muck we have been considering, and if so, the twelve and a quarter tons will give twenty-six hundred and fifty-eight pounds of geine.

The cost of growing this amount of vegetable matter, must of course vary with the varying cost and condition of the land on which it is grown, governed somewhat by the more or less favoring season.

Suppose the value of the land be estimated at ten dollars per acre, which is doubtless more than the average estimated value of our exhausted lands, and allow that an entire *mowed* and *uncut* two years growth of clover, herdsgrass and redtop, on such land, just equals Mr. Phinney's "thinly set" redtop and herdsgrass sward, which *had been mown*, and the cost of 2658 lbs. of geine from this source—if the grass seed be sown with some other crop and not charged with expense of plowing and harrowing—will stand as follows:

Two years' interest on cost of land,	$1 20
Grass seed, average cost, 8 lbs. clover, 80 cents; 8 qts. redtop, 25 cents; 4 qts. herdsgrass 33 cents; and sowing grass seed, 10 cents—	1 48
1-2 bush. plaster, and sowing and rolling, 50 cts. per year, two years,	1 00
Total, - - -	$3 68

Or less than 14 cts. for 100 lbs. The geine furnished by this grass sward is grown where it is wanted—ready carted and spread—for plowing under; and under a dry sandy soil, quickly becomes soluble without further expense.

If no fallacy or error has been admitted in the estimates thus far, the comparative expense of furnishing our exhausted fields with geine from the three sources considered, will stand as follows:

Dressing one acre with twelve and a quarter tons of vegetable matter, consisting of tops and roots of grasses, grown upon the spot, ready carted and spread for plowing under, will cost		$3 68
Dressing one acre with an equal amount of fertilizing matter from a compost of swamp muck and farm yard manure, 6⅔ tons, at estimated cost of materials,	$3 40	
Cost of composting, overhauling, reloading, carting to field, and spreading, varying with distance of carting—say average 60 cts. per ton,	4 08	
Total,		$7 48
Dressing one acre with an equal amount of fertilizing matter from the farm yard, 8⅓ tons, at $1 per ton,	$8 67	
Cost of hauling and spreading, varying with distance—average say 40 cts.	3 47	
Total,		$12 14

If these estimates are correct, or nearly so, (and the grounds on which they are based are given,) the farmer who has plenty of peat or swamp muck at hand, can furnish his plants with food, by means of compost, at a little less than two thirds the expense of furnishing the same amount from the cattle yard exclusively; and in addition to this great saving of expense, can three-fold his ordinary supply of food for plants, without increasing the number of his domestic animals, or competition with his less provident neighbor, for a supply from the market abroad; his muck or peat bog is a treasure that duly improved will render him independent of all foreign aid to fertilize; and with the farm yard, will doubtless afford him "poudrette" as good as the best, whenever correct views of true economy shall overcome State parsimony and real waste, so far as to put a chemist in the field to develope this eventually great source of fertility and wealth.

If in the estimated expense of collecting fertility from the atmosphere, sufficient allowance is made for the unknown precise value of the grass roots and tops; a given quantity of geine from this source can be furnished, to renovate an exhausted field, at about one fourth the expense of the same amount from the cattle yard. Indeed, if the estimate is correct, the cost of hauling and spreading manure and compost, will in some, and perhaps all, cases of land, remote from the farm yard, exceed the cost of growing upon the spot, an equal amount of fertilizing matter. This seems to leave no doubt as to the most economical method of restoring at least a moderate amount of fertility to our exhausted soils, but should by no means induce the neglect to save and use all the manure and compost which a farm can well furnish.

An important question comes up then, as to the most valuable plant to be grown as a fertilizer; and this inquiry can be solved with precision only by the practical chemist. Clover is justly held in high estimation. It has a large array of leaves, and presents a large surface of appropriating organs to the atmosphere, and may or may not be the best plant we have for the purpose of fertilizing. It has, however, obtained the distinction of being called "the mother of wheat," and accounts of the fertilizing effects of clover with other grasses, have been published, which go very far to support the estimated value of Mr. Phinney's grass sward.

In view of the known value of peat and swamp muck, which is mainly composed of the remains of plants of inferior character, weeds even, should not be viewed as "pests to the farmer," so long as they do not interfere with his growing crops; but as friends—foragers upon the atmosphere—gathering wealth that will ultimately appear in the heavy sheaf and full garner. Every blade and every leaf, however humble or obscure, and however brief its existence, at death yields to its mother earth a tribute of the elements of fertility, gathered from the atmosphere. This principle of fertility is indestructible as the earth itself, and must be lasting as time.

From the period of its first arrest, by the mysteriously life-endowed springing plant, it seems by a strong principle of affinity, ever to be seeking a reunion with its

native elements. This propensity or quality of its nature, which seems wisely ordered to prevent accumulations that otherwise would render the earth uninhabitable, is perfectly controlled by the principle of vitality, and after the death of the plant, by the absence of either air, or moisture, or temperature, that will promote the growth of plants—agents, which first gave it connexion with the living plant, and which now combine their efforts to effect its release, that it may be again arrested to give fresh beauty to earth, or do new service to man, and yet again be liberated, fresh as in the morning of existence, to run its ceaseless round of duty, in obedience to those laws which constantly tend to fertilize, where the labors of man, through ignorance or carelessness, constanly tend to impoverish. This propensity to evaporation or change, accounts for the exhausting effect of summer fallows and deep cultivation among growing crops; and also for the benefit resulting from a level surface on cultivated ground, by presenting less exposure to the exhausting effect of midsummer atmosphere, or for the escape of geine. It gives, indeed, a plain reason for various facts and phenomena, relative to the exhaustion of land, which have become well established by careful observation, after immense loss to farmers, from ignorance of this single principle, a knowledge of which affords a clew to the best means of preserving fertility, by disclosing its mode of escape. And yet, pending the discovery by Dr. Dana, or indeed in the face of it, there are not wanting those called farmers, who doubt if any thing valuable has recently been, or can be, learned, beneficial to agriculture!

In Dr. Dana's published remarks upon geine, the practical farmer will find much to aid his labors, and will feel much regret that the avocations of the Dr. do not permit him to deal as thoroughly with the "salts" or "seasoning," as he has with the "food" of plants,—a labor equally necessary as the other, and would doubtless accomplish more in a few months to advance the art of production, than can be reasonably expected from a century of merely practical experiments and observation, unaided by the light of science. It is this light that is needed. Indeed, the *feet* that tread the pathless wilderness, or the *hands* that labor at the nicest mechanism, may as well say to the *eyes*, we have no need of *thee*, as the practical farmer say to the chemist, your assistance is unnecessary.

Land may be unproductive from other causes than exhaustion or mere poverty. Water, or substances deleterious to vegetation, or which preserve the geine in an insoluble state, may exist in such quantity in a soil, as to render it sterile. Such lands cannot with propriety be classed with, or termed, exhausted lands. Exhausted lands properly include only such as have once possessed some degree of fertility, and have been reduced by a loss of geine, either drawn out by growing crops, or rendered soluble and scattered to the winds by exposure of the soil to the atmosphere in the process of cultivation. The *fact* that a soil is exhausted, gives evidence that its earthy constituents are *good*, or capable of supplying the elements which plants require of the primitive earths; otherwise it would not have sustained crops or invited cultivation to the point of exhaustion.

As before observed, exhausted lands are generally of those denominated "light lands"—sand predominating in their composition. The lighter qualities are frequently called "pine plains," or "pine barrens." These lands are termed *light*, from their open texture, and their comparative poverty, both in a natural state and where cultivated in a careless manner, is due in a great measure to their porosity. It is this open quality of texture, which admits the combined action of air, heat, and moisture, to resolve into its original elements, the vegetable matter contained in these soils, by the most rapid course of decomposition which nature exhibits; even artificial "sweat pits," to test experiments to prevent the decomposition of timber used in naval architecture, seems to make but one step in advance of the ordinary progress of decomposition near the surface of these lands in some of the summer months. Indeed the well known expedition with which a stake or fence post is "eaten off," may well vie with any artificial method of decomposition, whatever, and sets forth the *digestive power*—if it may be so termed—of these soils, in its true light, as exceedingly active. Without this power in a certain degree, however, a soil is valueless for all the ordinary purposes of cultivation; as on this quality depends the production of soluble geine from those substances applied to the soil as alimentary manures. But if this digestive power is too active, and is not restrained, the materials producing geine are soon wrought up, and their products given to "infiltration" or to the winds, while the incumbent crop is left to suffer some degree of want in the midst of its growth and perhaps starvation at its close, where plenty has been wasted. To regulate this power then, by promoting its action where it is too sluggish, and controlling it where it is too active, may require the best judgment of the farmer; and whether he recognises the principle or not, his success may depend much upon his practice according with it. Clay or hard pan on the one hand, and porous sands on the other, alike require his mechanical skill to render them fertile, or place them on a par with those soils which the revolutions and currents upon the earth's surface, have compounded at a happy distance between these two extremes.

The under-draining and subsoil-plowing of compact and heavy or wet land, confers a double benefit. By sinking the water, and admitting air or atmospheric influence to a greater depth in the soil, its decomposing power is promoted, by which the insoluble geine in the soil is rendered soluble, and a more extended range is also given to the roots of the plants. Under this process, the character of the soil changes, and its products change;—cold land becomes warm—aquatic plants and worthless herbage, give place to useful vegetation—and land even but moderately heavy is much improved. This result is seen where swampy or heavy lands are "thorough drained," and the cause seems directly traceable to the quickening and solutive effect of atmospheric influence, admitted to act upon the roots of the growing plants and the inert vegetable matter, to a good depth beneath the surface.

On the other hand, the roller, on very light and porous lands, effects equal benefits by an opposite process. By compressing the surface, (not to hardness, but giving it more compactness,) the air is in some measure excluded, and the digestive power of the soil is less active, moisture is better retained, and the ready escape of geine as it assumes a gaseous state, prevented—and the fine roots of young grasses, instead of striking into vacancies to grasp at empty space, and be followed and parched up by the first drying winds, find protection from the air, and substance to take hold of which affords moisture and sustenance; and with a favorable season and a New England climate, a fine grass sward easily results. Under this process, the lightest exhausted land, except perhaps a drifting sand hill, can be resuscitated. The character of this soil also seems to change, and its products change. The arid, porous, sunburnt surface becomes comparatively firm and moist; sparse coarse-rooted weeds, nodding over the desolate field, give place to enriching grasses; a lively green succeeds a lifeless brown; where the plow heel left a wave of light crawling sand, it now leaves a dark, glossy, adhesive furrow-slice; and clover and corn luxuriate, where mulleins and johnswort held battle with famine. The result is seen in all cases, on light porous land, where the roller or its equivalent is used, in connexion with a proper supply of vegetable matter plowed under; except perhaps over a gravelly open subsoil, that prevents the subjacent moisture from ascending to supply the plants in time of drought. The cause seems plainly traceable to giving the soil more compactness as a starting point, that it may resist the free escape of geine and moisture, and give protection and support to young grass plants as a medium to fertility.

The fertility of land is found to depend much upon its power of absorbing and retaining a due degree of moisture, and its power of absorption and retention is promoted in all cases, by enriching the soil or increasing its geine, as, according to Professor Hitchcock, no other earthy substance possesses this power in an equal degree. The more, therefore, there is mingled with a *dry soil*, of *well decomposed* vegetable matter, whether it be from the cattle yard or muck pit, or decayed grass sod, the better the soil will preserve a suitable degree of moisture to sustain growing plants in time of drought; while in a *moist soil*, the increase of geine may cause excess of moisture, and increase the necessity of underdraining. The result from this property of geine, is highly beneficial in the first case, and in some measure supercedes the necessity of mixing clay with a sandy soil to effect the same object; but in the moist soil, is in some degree pernicious, unless the proper remedy be applied.

It is not to be expected that land nearly reduced to sterility can be brought up, and made fertile at once, without extraordinary means. If the process be, to fertilize entirely from the atmosphere, it is a work of time; for the first series of plants will of necessity be feeble in their early growth, and the difficulty of obtaining these, if clover and grass is first attempted, is sometimes increased by the adversity of the season. Under favorable circumstances, two full years unimpaired growth, stimulated by light annual dressings of plaster, should be given before a crop is attempted, after which an immediate repetition of the same process will, in most cases be required before a sufficient amount of vegetable matter is accumulated to allow of cropping with the best advantage or a due regard to the best economy. After this point is attained, a crop may be taken from the land annually, if a suitable rotation is observed, and a proper part of the growth of each season left for plowing under; that is if corn is taken, the stalks should be left; if English grain, an after-growth of grass and weeds; or if clover or grass, the rowen should be left, or occasionally an entire year's growth be devoted to the purpose of fertilization; otherwise deterioration takes place, which is inconsistent with good management. This long process may frequently be shortened to advantage by the aid of muck or manure, or both, according to the attendant circumstances of location and means.

Ripe crops are doubtless more efficient for fertilizing than green crops; at least, so Nature, who is said to be "no niggard," has taught us by example, in preparing the earth for the abode of men and animals. The philosophy of this has been given by Dr. Dana, and published in Mr. Colman's Third Report of the Agriculture of Massachusetts.

The roller may be regarded as indispensable to the profitable cultivation of sandy or light lands. The free use of a fine harrow or of a heavy bush, will settle the soil in some degree; but at best, those implements are poor substitutes for the roller, as a means of giving that compactness near the surface necessary to preserve for the growing plants the decomposing matter beneath; which as it takes a gaseous form, is by every outlet ever seeking to escape. The amount of fertilizing matter thus lost to the cultivator, by its unarrested, unseen and unceasing process of change from solid to aeriform and departure, is unquestionably very great, however difficult it may be of exact ascertainment; and justly entitles these soils to the title of *evaporating* soils, rather than that of "leeching," or leachy, sometimes given. There are doubtless many farms of this land where the roller is not used, that its judicious application in preventing this great loss of fertilizing matter, would more than outweigh the entire benefit usually derived from the proceeds of the cattle yard, as commonly applied. This may be thought a wild assertion, but will seem to be the sober truth, when we reflect upon the natural rapid tendency to decay in these soils, which will, and can, continue so long and no longer than while atmospheric air finds free avenues of access to the decaying matter—whether it be the fibre of unremoved roots of plants grown in the soil, or manure applied, or vegetable growth turned under—to displace or dissipate the *gas* which ever envelopes decaying substances, and which somewhat in proportion as it is confined, arrests the further decomposition of remaining matter, and by thus inducing a less rapid rate of decomposition, and being itself taken up by the roots of plants, would benefit the filling out of the crop, were it not so soon set at perfect liberty and given to the atmosphere, by the free ingress and egress of that unsated and untiring agent of dissolution.

The action of ammonia, generated so abunbantly by animal manures when buried in the soil, also increases the demand for the roller, by accelerating the work of evaporation; as it not only prepares the crude substances in the manure for rapid dissolution, but seizing upon the inert vegetable matter in the soil, neutralizes its acidity, and in reducing it to a soluble state, effects perhaps as much in days, as unaided spontaneous decomposition does in weeks. The effect of this is seen in the large early growth of stalks, and diminutive starved crop of ears, where corn is planted over a small quantity of uncompounded quick manure, on dry sandy land of medium quality. And so sure is this result, that some farmers will not apply manure for a corn crop on pine plains, thinking it injurious, or productive of stalks only; whereas the injury arising in such cases, is not justly attributable to the *use* of manure, but to its uncombined or unskilful application, and the subsequent mismanagement of the soil.

It is said by Dr. Dana, to be this property of ammonia which renders animal manure so valuable in neutralizing the acidity of peat and swamp muck in compost, and preparing those substances for immediate use; and it is doubtless this property which accounts for the long known, but unexplained fact, that tillage land, once put in

a highly productive state by the application of farm yard manure, and impoverished, is again rendered fertile with more difficulty than land of the same natural quality and equally unproductive, which has never been treated with manure.

The roller provides against excessive action and evaporation, by closing the pores or interstices in such measure as to hold in partial duress the matter beneath, for the more exclusive and more lasting benefit of the growing plants, and its efficiency in this respect, and in securing the primal growth of clover or grasses for enriching the soil, seem to leave little doubt that it is an indispensable implement for the *profitable* cultivation of light lands, whether exhausted or fresh. Soils sufficiently compact to give suitable protection and mechanical support to young grasses, do not require rolling, except to reset grasses or grain thrown out by frost, or to give a smooth finish after seeding, which can be done with good effect on heavy lands, only when the surface lumps are friable; and lands free from excess of moisture, and sufficiently porous to admit the roots of plants to extend freely, do not require under-draining or subsoil-plowing.

The effect of compressing the surface of light lands, as seen in the grass sward that follows the winding of a seldom used path over an old field, can hardly have escaped the notice of any one, presenting as it frequently does, a verdant stripe amid a lifelesss waste.

In discussing thus far, the subject of "renovating exhausted lands," I have, Mr. Editor, strayed into other fields almost imperceptibly, and have been led to say much more than I intended to, or perhaps than may be thought worth a place in your journal. And lest I should give still further occasion for the use of your "editorial shears," I will omit the detail and result of some small experiments which I did intend to give as further evidence in the case, or to illustrate some of the principles recited.

Yours, respectfully,

WILLIAM CLARK, JR.

Northampton, March, 1842.

GOLDEN RULE FOR FEEDING COWS.

"Give them their food
By little, and often,—but let it be good."

PENCIL CEDAR.—It is not generally known that if the lining of drawers, in which clothes are kept, is made of pencil cedar, no moths or other destructive insects, will get into them; and as the wood is much cheaper than wainscot or mahogany, and gives a delightful perfume to the clothes contained in the drawers, the facts only require to be known to bring it into very general use.

A PREVENTIVE OF THE WEEVIL IN WHEAT.—MR. HOLMES:—Great loss has been sustained in this section of the State for several years by the weevil. A remedy has been found—first suggested, I believe by our *curious and useful* friend Dr. Leach of Sangerville. The remedy is no less than this. Sow spring rye with the wheat. I sowed a square lot of six acres to wheat last spring, and then to test this preventive, I sowed the borders of the field, two rods in width, with twelve quarts of rye. The result was, the weevils were deposited in the rye in such numbers as to produce a famine in nearly every head. There were no wevils in the wheat, and I think there was not a quart of rye grown in a hundred bushels of the wheat. My neighbors were apprised of my design of sowing the rye, but they were wanting in the faith, and their grain sown at the same time suffered very materially.

CALVIN CHAMBERLAIN.

Maine Farmer.

HERE'S THE BIGGEST HOG.—The following, which has been handed to us by Wm. C. Fuller Esq., was received from his friend Jameson, it will show you what a Kennebec pig will come to when fed on York County corn. Mr. Fuller sent to Mr. Jameson, a pair of pigs. The sow was obtained in Readfield, and we do not know what breed it was. The Boar was obtained of Capt. Francis Perley of Winthrop, and was a grandson of the Berkshire boar imported by Capt. Lombard of Wales, and is now owned by Joshua Wing, Esq. of this town. Its mother was a mix of Bedford, Mackay and some other strains, we don't know what.

Cornsville, March 24, 1842.

I have killed the boar pig, which I had of you, to day. He weighed when alive, 1000 lbs. When dressed the neat weighed 905 lbs. Caul and heart weighed 38½ lbs. Whole weight 942½ lbs. Loss in dressing only 66½ lbs. What think ye of that? Can you beat it in Kennebec? He had no extra keeping till last September;—six bushels of potatoes and two bushels of meal lasted three of them two weeks, all through the spring and summer—I fed them but twice a day—mixed the potatoes and meal with water and some milk. Since September, I have given him corn at noon. I could have made him weigh 1200, had I thought of making him a great hog, in season. Can you get me another like him? I did not like the sow so well and sold her. She had no pigs. J. JAMESON.

Maine Farmer.

A Cure for Consumption—Mr. Adam Mott gives the following statement in the Maine Farmer:

"A friend of mine, who resides in Industry, in this state, told me that his wife was sick of what the Doctors called the Consumption. She was visited by four physicians, who gave her over. She was very sick—was unable to sit up—had a very severe cough,—and grew no better, "but rather worse"—she failed very fast. She recollected that she had before received benefit from the use of St. John's wort; her husband procured some of it, it was steeped, and she made it her constant drink—for four or five days there appeared to be but little alteration; but after this she grew better very fast; her health was so much improved that in the course of six or eight weeks she was able to resume her customary occupations—she commenced weaving, and wove about 40 yards of cloth. During this time she made constant use of St. John's wort tea—What has been done may again be done. It helped her: it may help others.

The tea may be made as you would make peppermint or any herb tea to drink—by merely steeping the herb in water. The herb may be gathered any time after it is large enough—but the best time for gathering it is during the seventh month. A supply may now doubtless be found in almost every hay mow where there is any hay. I much approve of this simple remedy. A. MOTT."

METEOROLOGICAL TABLE,

Kept at Schellman Hall, near Sykesville, for April, 1842.

	WIND			TEMPERAT'E.			REMARKS.
	Mor.	N'n.	Eve.	Mor.	N'n.	Eve.	
1	W.	SW.	S.	25	60	58	Frost Clear
2	S.	S.	S.	56	70	64	Clear.
3	S.	S.	S.	45	75	73	Clear Showers
4	E.	E.	NE.	47	60	48	Rain.
5	NE.	SW.	SW.	40	60	55	Cloudy. Clear.
6	N.	S.W.	S.	42	60	50	Clear.
7	S.	SE.	S.	50	79	70	Showery Clear
8	SW.	NE.	NE.	55	56	50	Cloudy. Rain.
9	N.	N.	N.	45	55	58	Rainy. Cloudy. Clear.
10	N.	S.	S.	42	70	60	Clear.
11	S.	W.	W.	60	75	67	Clear.
12	NE.	NE.	NE.	48	70	68	Clear. Cloudy
13	E.	E.	E.	43	75	66	Rain.
14	N.	SW.	SW.	45	65	55	Cloudy. Clear.
15	SW.	SW.	S.	41	66	45	Clear.
16	NE.	SE.	SE.	48	57	55	Clear.
17	NE.	NE.	NE.	45	45	40	Rain
18	NE.	NE.	NE.	44	47	45	Rain.
19	NE.	N.	SE.	42	46	50	Rain. Cloudy.
20	NW.	NW.	NW.	46	61	55	Cloudy. Clear.
21	N.	SE.	S.	48	70	58	Clear
22	SW.	SW.	SW.	48	78	70	Clear.
23	NW.	N.	N.	70	79	67	Clear.
24	N.	E.	E.	54	75	64	Clear.
25	E.	SW.	S.	60	85	68	Foggy. Clear.
26	S.	W.	S.	70	74	80	Clear. Gust.
27	SW.	W.	W.	60	65	54	Clear
28	S.	SW.	SW.	42	54	45	Clear
29	S.	S.	S.	40	67	44	Clear
30	NE.	S.	SE.	41	68	60	Frost Clear

BALTIMORE MARKET.

Hogs.—About 600 head of Live Hogs have been in market this week, and sales have been making at $4,50a$4,75 per 100 lbs. as in quality.

Cotton.—The demand continues very light.—We note sales of 140 bales Florida at 8a8¼ cts.

Molasses.—We hear of no sales of consequence this week. New Orleans is held at 20 cts for bbls.

Sugars.—The transactions this week have not been extensive. On Wednesday 150 hhds. Porto Rico, cargo of schr. Ratavia, were offered, but immediately withdrawn. The whole lot was afterwards sold on terms not transpired, but understood to be at about the current rates.

Tobacco.—The Tobacco market has been very active this week. The receipts have been unusually large, amounting to nearly 1800 hhds, and a considerable amount has been sent on ship board for export to Europe. The demand for the middling and better qualities of Maryland has been steady throughout the week, while the common and inferior sorts have been neglected. Prices of all descriptions are very well maintained, viz. inferior and common Maryland at $2,50a$3,50; middling to good $4a$6,50; and good $7a$8; and fine $8a$12. The stocks in the warehouses do not accumulate as rapidly as might be supposed from the large receipts since the commencement of the Spring business. Ohio has also been in improved demand, and sales to a moderate extent at former prices which are fully sustained, viz. common to middling $3,50a$4,50; good $5a$6, fine red and wrappery $6,50 a$10. fine yellow $7,50a$10; and extra wrappery $11a$13. The inspections of the week comprise 1445 hhds. Maryland; 390 hhds. Ohio; 29 hhds. Virginia; and 20 hhds. Kentucky—Total 1784 hhds.

Cattle.—The number of Beef Cattle offered at the drove yards to-day was unusually small, amounting in all to a little upwards of 80 head. They reach about 70 head at $5a6,50 per 100 lbs. as in quality.

Flour.—Some limited sales of Howard street Flour were made from stores this morning at $5,75, which we now quote as the uniform price for good standard brands. The wagon price is $5,52½.

A sale of 1000 City Mills Flour on Saturday at $6,12½. Holders now ask $6,25.

A sale of 500 bbls. Susquehanna Flour to-day at $5,75 cash.

Grain.—Wheat has improved a little. Sales of prime Pennsylvania reds were made on Saturday at $1,32a$1,35, and to-day several parcels were sold at $1,35a$1,36. Sales of Md. reds in very small parcels at $1,25a$1,30. A sale of Pennsylvania round yellow Corn was made on Saturday at 56 cents. We quote Md. to-day at 53a55 cts. for white, and 57a58 cts. for yellow—sales. Sales of Md. Rye at 75 cents. Oats are worth 40a42.

Provisions.—We are not advised of any sales to day, and we repeat last week's prices which are now the nominal rates, viz. Mess Pork at $8; No. 1 at $7,50; Prime at $5,50; Mess Beef at 9,50; No. 1 $5,50; and Prime at $4,50. We quote the range for assorted Western Bacon at 3¼a4¼ cents; Hams at 5 a7 cents, Sides at 3¼a4 cents, and Shoulders at 3a3¼ cents.—Lard is held at 6 cents for No. 1 Western in kegs.

Rail Road Orders.—We now quote the buying rate of the brokers at 60 cents on the dollar.

Virginia Bank Notes.—We quote as before the notes of the Wheeling Banks at 15 per cent. discount and those of all the other Virginia Banks at 7¼ per cent.

Richmond, May 5.—For cattle on the hoof from $4 to $5,-50 are the general prices. Flour.—Demand limited, sales at $5 7-8. Grain.—Wheat $1a$1,10, are the prices now paid for good red and white. Corn 55a60c per bushel. Oats 40 to 45 cents.

At New Orleans, in three days ending on the 29th ult., but a limited business was done in Cotton, and a decline of a ¼c was established, on the middling and lower qualities of Cotton, owing to unfavorable news from Europe. The following quotations show the state of the market:—Liverpool classification.—Ordinary 5¼a6, Middling 6¼a7¼, Middling fair 8¼a8¾. Fair to fully fair 9¼a10, Good fair 10¼a11, Good and fine 12. Sugar was dull and prices ranged from 2¼ to 5¼c as in quality. Molasses 12¼a14 with but a moderate business. Flour 4,75a$4,87½.

New York, Monday, P. M.—The demand for Inland Exchanges is quite moderate. Philadelphia is at par a ¼ dis, Baltimore 1-8, Virginia 7¼a8¼, N. Carolina 4a4¼, Charleston 1¼a1 5 8, Mobile 15a15¼, Montgomery 15¼a16, New Orleans 5¼a5 5-8, Louisville 3¼a4. Treasury notes ¼a¾. No change to notice in Cotton—1100 bales were sold at last week's prices. Western Flour is in active demand, for shipment to the East—1500 bbls. sold in lots at $6,25, an advance on last sales of 12½c. 500 bbls. Ohio via Canal $6,12½, 200 bbls. Georgetown $6,37½. 8700 bushels Illinois Wheat, for milling, at $1,26. 1000 bushels North River Corn 66 cents measure. 400 bushels Rye 65a66 cents, 1000 do. North River Oats 40 cents.

Philadelhia, May 7.—The receipts of Wheat continue very light, and find ready sale for milling at 131a132c. per bushel for good Penn's. One lot of very superior Illionis, received this week from New Orleans, weighing 62 lb. to the bushel, sold from store at 132c. per bushel. Southern Wheat 125a128c. Southern yellow flat Corn has advanced to 60c. with sales to the amount of about 10,000 bushels, sales do. white 55c. Southern Oats 41 cts.—Penn'a. round Corn 62c per bushel. Beef Cattle—520 head were at market, sales ranged from $4¼a$6—100 left over.

JAS. MURRAY, *Millwright, Pattern Maker & Machinist*,

York, near Light st. Baltimore, having good workmen, is prepared to execute orders in the above branches at the shortest notice—and warrants all mills planned and erected by him to operate well. Also manufactures a great variety of small mills for hand or horse power.

Corn Shellers, shelling from 30 to 300 bushels per hour, made to suit any power, price from $15 to 75
Corn Crushers, grinding from 6 to 12 bush. per hour with one horse to two horse power, a superior article, price 35 to 40
Portable and stationary Horse Powers, price from 75 to 150
Turning Lathes, single and double, price from 15 to 75
Patent rights for sale for the Endless Carriage for gang Saw Mills, a good invention. may 11 1y.

MINGO, CHIEF,

Will make his first season in Maryland, and be let to Mares at the Farm of Mr. J. P. E. STANLEY, 4 miles from Baltimore, on the Frederick road, at TEN DOLLARS for each Mare.

MINGO CHIEF is five years old this spring, near fifteen hands high, of a rich brown colour, perfectly formed for speed and action, goes all gaits naturally, and is very fast under the Saddle.

MINGO CHIEF was got by an Indian Horse, (grandsire of the famous trotting horse Beppo, and many other celebrated trotters and rackers;) that in his prime has racked his mile in 2—30, and although upwards of 20 years old, is still kept for Mares in Canada.

The dam of Mingo Chief was pure Canadian, and could trot a mile in 3 minutes without training. Mingo Chief was selected during the last summer in the neighborhood of Montreal, by a gentleman experienced in these matters, as being the best horse he could find to cross upon the stock of this part of the country for the production of Saddle Horses. The celebrated Morgan Breed of Vermont is said to be of the same cross.

Season to commence 1st April and end 1st August.

ap 13 E. WEEKS, *Manager.*

LIME—LIME.

The subscriber is prepared to furnish any quantity of Oyster Shell or Stone Lime of a very superior quality at short notice at their Kilns at Spring Garden, near the foot of Eutaw street .Baltimore, and upon as good terms as can be had at any other establishment in the State.

He invites the attention of farmers and those interested in the use of the article, and would be pleased to communicate any information either verbally or by letter. The Kilns being situated immediately upon the water, vessels can be loaded very expeditiously. N.B. Wood received in payment at market price.

ap. 22 3m E. J. COOPER.

SEED-STORE & AGRICULTURAL WAREHOUSE.

The subscriber has for sale at the old stand, No. 176 MARKET STREET, PHILADELPHIA, the most extensive assortment of GARDEN, GRASS and FLOWER SEEDS, to be found in the U. States. The assortment comprises all the standard varieties; also many new and choice kinds, crop of 1841, and warranted of the best quality.

ALSO,

PROUTY & MEARS' Centre Draught self sharpening PLOUGHS, the best and cheapest Ploughs to keep in repair now in use;

Also, PROUTY & MEARS' patent SUB-SOIL PLOUGH. This implement does the work to admiration, leaving the sub-soil in the best possible manner.

Also, Straw Cutters, Corn Shellers, Fan Mills, Vegetable Steamers, Cultivators, hill-side Ploughs, left hand Ploughs, and GARDEN TOOLS of all kinds—Agricultural BOOKS, &c. &c. for sale at wholesale and retail at the lowest prices, by

D. O. PROUTY,

No. 176 Market street, between 5th & 6th streets,

mh 15 2m Philadelphia.

FARMER'S REPOSITORY,

PRATT ST. BALTIMORE.

Constantly on hand a large assortment of PLOUGHS made of prime materials and good workmanship, and of most approved patterns; Davis' improved ploughs, of all sizes with cast and wrought shares; King's Connecticut ploughs, simplified and improved with cast and wrought shares. the Davis cast points, to suit the ploughs, likewise Evans reverse point or self-sharpening ploughs. All the above named ploughs are particularly adapted to the Eastern shore and lower counties of this State, as also the entire Southern country; also various other make of ploughs which have given great satisfaction to those who have used them; hill side and shovel ploughs; very superior plain and expanding Corn and Tobacco Cultivator, these can be recommended as being superior to any other article of the kind made in this State; four different patent Corn planters and seed droppers viz: Bachelder's, Osgood's, Old's and Robin's, and almost every other article in the agricultural line. A Foundry is attached to this establishment, and a large supply of plough castings are constantly kept on hand, which will be sold wholesale and retail as low as can be purchased in the City.

ON HAND—Horse Powers, Threshing Machines, Wheat Fans, &c. ALSO, a large supply of Cylindrical Straw Cutters. with wood and iron frames, from $32 to $110, and to meet the exigences of the times, and to encourage cash sales, a liberal discount will be made. JONATHAN S. EASTMAN,

ap 13 Sole Proprietor.

REAPING MACHINES, CORN AND COB CRUSHERS, CORN SHELLERS, &c. WARRANTED.

The Reaping Machine stands alone, increasing in reputation from year to year, saving its first cost in one large crop in the waste alone, while the attempts of others, to construct machines for a similar purpose, are well known to be total failures. Those who wish to procure Machines for the ensuing harvest, are requested to make early application to the subscriber, who has greatly improved them since last year. Corn and Cob Crushers, warranted superior to all others, also, Corn Shellers and Huskers constantly on hand at reduced prices. fe 23 OBED HUSSEY.

TO FARMERS.

The subscriber has for sale at his Plaster and Bone Mill on Hughes street, south side of the Basin, GROUND PLASTER, GROUND BONES, OYSTER SHELL & STONE LIME, and LEACHED ASHES, all of the best quality for agricultural purposes, and at prices to suit the times.

Vessels loading at his wharf with any of the above articles, will not be subject to charges for dockage or wharfage

fe 23 WM. TREGO, Baltimore.

MARTINEAU'S IRON HORSE-POWER

The above cut represents this horse-power, for which the subscriber is proprietor of the patent-right for Maryland, Delaware, and the Eastern Shore of Virginia; and he would most respectfully urge upon those wishing to obtain a horse power, to examine this before purchasing elsewhere; for beauty, compactness and durability it has never been surpassed.

Threshing Machines, Wheat Fans. Cultivators, Harrows and the common hand Corn Sheller constantly on hand, and for sale at the lowest prices.

Agricultural Implements of any peculiar model made to order at the shorest notice.

Castings for all kinds of ploughs, constantly on hand by the pound or ton. A liberal discount will be made to country merchants who purchase to sell again.

Mr. Hussey manufactures his reaping machines at this establishment R. B. CHENOWETH,

corner of Front & Ploughman sts. near Baltimore st. Bridge, or No 20, Pratt street. Baltimore, mar 31, 1841

THE LIME KILNS.

The subscriber, in order to meet the increasing demand for Lime for agricultural purposes, has established Kilns for burning the same on the Rock Point farm, belonging to the Messrs. Lancaster, in Charles county, Md where he is ready to supply all demands for this section of the state, and the waters of the Potomac, on accommodating terms. Orders directed to him at Milton Hill Post Office, Md. will meet prompt attention.

de 7 6m* WM. M. DOWNING.

BERKSHIRE PIGS.

The subscriber will continue to receive orders for their spring litters of young Berkshire Pigs, from their valuable stock of breeders, (for particulars of which, see their advertisement in No 34 or 37, Vol. 2 of this paper.) Price at their piggery $20 per pair; cooped and delivered in, or shipped at the port of Baltimore, $21 per pair.

All orders post paid will meet with prompt attention—address,

T. T. & E. GORSUCH.

Hereford, Baltimore Co. Md. mh 23

BADEN CORN.

The subscriber has received from Mr. Baden a lot of this celebrated CORN—and those wishing to make a trial of it can obtain it lots of a peck, bushel or larger quantity. Apply to

mh 16 S. SANDS.

Who has for sale two beautiful DEVON HEIFERS, nearly two years old, deliverable in this city for $50 each. Also a very handsome Devon BULL. one year this spring, price $50, and a HEIFER of same age and blood, price $40. mh 15

PROUTY & MEARS' $100 PREMIUM PLOUGH.

Received at the office of the American Farmer, two sizes of the above celebrated plough, to which was awarded the prize of $100 at the Massachusetts Fair. Farmers and others are invited to call and examine them. Orders received for them, as also for the Wiley and other ploughs, by m 30 SAML. SANDS.

MURRAY' SCORN & COB CRUSHERS.

The subscriber, who exhibited the Corn and Cob Crusher and Grinder at the Agricultural meeting at Govanstown, continues to build them, and has so improved them that persons who have not got horse powers, can use them by hand power, with sufficient facility to supply the wants of small farms, and with one or two horse power can do more work, he believes, than any other machine for the same purpose that will require double the power. Having made a new set of patterns, and put such improvements as may have suggested themselves for the benefit of the machine, he has been obliged to increase the price to $40, which includes an extra set of grinders.

He is also prepared to build portable HORSE POWERS of the very simplest and best construction, in every respect best suited for farmers; in place of using cast iron wheels, he uses leather belts, which the farmer can keep in repair himself. It is now well tested that belts are as well adapted to driving machinery as cast iron wheels.

☞Orders for the above machines can be left with Mr. SAML. SANDS, at the office of the American Farmer, or with the subscriber, WM. MURRAY, Powhatan Factory,

fe 2 Baltimore county.

BERKSHIRE PIGS.

The subscriber has for sale, genuine Berkshire Pigs of the celebrated stock of C. N. Bement, Esq. of Albany, N. Y. at the very reduced price of *Ten Dollars* per pair. Apply to Robt. Sinclair, Jr. or the subscriber at Elkridge Landing.

RICHARD B. DORSEY.

Also a Berkshire Sow about 9 mos. old, and a sow 18 mos. old

ap 20 4t*

MURRAY'S CORN & COB CRUSHERS

The subscribers, inventors and patentees of this most excellent machine, offer for sale the right to manufacture for any state or county in the U. States. That this machine will be adopted, and become in general use in the corn-growing districts of our country there can be no doubt, as it is satisfactorily ascertained that more than one-third of the value of the produce is lost by the waste of the cob, which being crushed and ground with the grain, is more valuable for stock than corn fed by itself, and we guarantee that our Crusher will do more and better work with the same power than any other machine of the kind now in use, and invite all manufacturers to a fair trial.

☞We have appointed Mr. SAMUEL SANDS the sole Agent for the sale of rights, who will give every necessary information to those desirous of purchasing. All letters must be post paid.

NOTICE—There are several machinists infringing upon our patent CORN and COB CRUSHERS—we therefore forbid all persons from making, vending or using Corn Crushers having a tube or tubes for holding the ears of corn while they are broken, except such as have rights. JAS. & WM. MURRAY,

mh 2 Baltimore, Md.

AGRICULTURAL MACHINERY,

Manufactured and for sale by A. G. & N. U. MOTT

South east corner of Ensor and Forest sts. near the Bel-air market, Old Town, Baltimore,

Being the only agents for this state, are still manufacturing WILEY'S PATENT DOUBLE POINTED COMPOSITION CAPT PLOUGH, which was so highly approved of at the recent Fair at Ellicott's Mills, and to which was awarded the palm of excellence at the Govanstown meeting over the $100 Premium Plough, Prouty's of Philadelphia, and Davis' of Baltimore, and which took the premium for several years at the Chester Co. Pa. fair—This plough is so constructed as to turn either end of the point when one wears dull—it is made of composition metal, warranted to stand stony or rocky land as well as steel wrought shares—in the wear of the mould board there is a piece of casting screwed on; by renewing this piece of metal, at the small expense of 25 or 50 cts. the mould board or plough will last as long as a half dozen of the ordinary ploughs. They are the most economical plough in use—We are told by numbers of the most eminent farmers in the state that they save the expense of $10 a year in each plough. Every farmer who has an eye to his own interest will do well by calling and examining for himself. We always keep on hand a supply of Ploughs and composition Castings—Price of a 1-horse Plough $5; for 2 or more horses, $10.

We also make to order other Ploughs of various kinds.

MOTT'S IMPROVED LARGE WHEAT FAN, which was so highly approved of at the recent Fair at Ellicott's Mills and at Govanstown, as good an article as there is in this country—prices from 22 to $25.

A CORN SHELLER that will shell as fast as two men will throw in, and leave scarcely a grain on the cob nor break a cob, by manual power; price $17.

CULTIVATORS with patent teeth, one of the best articles for the purpose in use, for cotton, corn and tobacco price $4, extra set of teeth 1.

HARROWS of 3 kinds, from 7 to $12.

GRAIN CRADLES of the best kind, $3.75.

HARVEST TOOLS, &c.

Thankful for past favors we shall endeavor to merit a continuance of the same. ja 26 tf

MOTT'S AGRICULTURAL FURNACE.

The subscriber respectfully informs his customers, and the public generally, that he has on hand, and intends constantly to keep, a supply, of MOTT'S JUSTLY CELEBRATED AGRICULTURAL FURNACES, for cooking vegetables and grain for stock of all kinds. They vary in size from HALF a barrel to FOUR barrels, and are better adapted to the purpose for which they are intended than any other yet invented; obtained the premium of the American Institute, and have given satisfaction to every gentleman by whom they have been purchasedr. Col. C. N. BEMMN, the distinguished agriculturist near Albany, New York, who has had one in use for some time, in a letter to the editor of the Cultivator, says.

"The one I purchased last fall, I continued to use during the winter, and have found no reason to alter the opinion then expressed; but on the contrary, I am more confirmed, and do not hesitate, without qualification, to recommend it, with the ate improvements, as superior to any thing, for the purpose intended, which I have ever used, or which has fallen under my observation."

"Mr. Mott has lately sent me one of the capacity of two barrels, containing the improvements, which consist in casting "points of attachment" or gudgeons, on the rim or sides of the kettle, "so that with a crane or level" it may be raised out of the casing and the contents emptied out, and to facilitate which, a loop or eye is cast on the bottom of the kettle so that it can be done without burning the fingers. The flange also, has been extended beyond the edge of the casing, so that if water boil over it will not run down the flues and put out the fire."

These furnaces and boilers are portable and may be set up in any out-house, being from their compactness and construction perfectly safe. The furnaces are made of cast iron and peculiarly calculated to economise fuel.

The following are the prices for one of the capacity of a half barrel $12,50

do	do	do	One barrel	20,00
do	do	do	One and a half	24,00
do	do	do	Two barrels	28,00
do	do	do	Three do	38,00
do	do	do	Four do	48,00

A. WILLIAMS, Corner of Light & Pratt St. Balt. Md.

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FRESH GARDEN SEEDS.

ROBERT SINCLAIR, Jr. & CO. No. 60 LIGHT ST. have just received, (via New York,) by the ships Gladiator and Quebec, and from their SEED GARDENS, near this city, a superb assortment of GARDEN AND EUROPEAN FIELD SEEDS, among which are Knight's extra early dwarf; Vanac Pontrefact early York, and Sinclair's early flat Dutch or Landreth's improved Cabbage Seed; *all new and superior sorts.*

Seventy-five bushels Sinclair's extra early Peas.

Knight's and Groom's marrowfat, egg and several other new varieties of Peas.

600 lbs. scarlet short top and turnip Radish Seed.

Half long and turnip Beet; color very dark and finely shaped.

Early cup Parsnip; Brocoli; Cauliflower.

Lettuce, Large red and yellow Globe Mangel Wurzel; the latter a new variety.

Dwarf and pole Beans; Lettuce, Cucumber, Squash;

Giant and common Celery; Egg Plant, Early Corn, Melons, Onion, Savoy Spinach, Tomato, Turnip, ash leaved Kidney, early frame and London round Potatoes; Lucerne, Vetches, &c. &c.

In store—American Field Seed of all sorts; Garden and Farming Tools, books on agriculture and management of stock, Plough and Machine Castings, Ploughs and Agricultural Machinery. A large and general assortment.

TREES AND PLANTS; raised at the Clairmont Nurseries.